

25 dB DC Pass

High Power Directional Tap

ZARC-25-252+

50Ω 100W 550 to 2500 MHz



CASE STYLE: AW1564

The Big Deal

- High Power Handling, 100 W
- Excellent Mainline Loss, 0.25 dB typ.
- Very good VSWR, 1.15:1 typ.

Product Overview

The ZARC-25-252+ high power directional tap is ideal for signal monitoring up to 100W RF signals in UHF and wireless telecommunications applications. The heavy-duty microstrip module is housed in a rugged aluminum alloy case, with anodized aluminum heat sink and gold-plated SMA connectors. Overall dimensions are 3.00" x 2.81" x 2.03" high.

Feature	Advantages
0.25 dB typ. mainline loss	Extremely low internal power dissipation, reducing mainline loss and internal temperature for high reliability
VSWR 1.15:1 typ.	Very good 50Ω impedance matching minimizes interference with signal integrity
DC Pass up to 2A	Suitable for applications using remote antenna control or other remote motorized requirements
100 W input maximum	High power capacity, combined with excellent insertion loss, supports operation in transmitters and base stations for GSM, CDMA, UMTS, or LTE systems, UHF broadcasting, fixed microwave, and 2.4 GHz wireless LAN applications

Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



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100W

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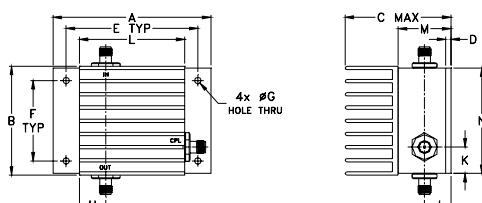
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input	100W max.
DC Current (IN-OUT)	2A
Permanent damage may occur if any of these limits are exceeded.	

Coaxial Connections

INPUT	1
OUTPUT	2
<td>3</td>	3

Outline Drawing

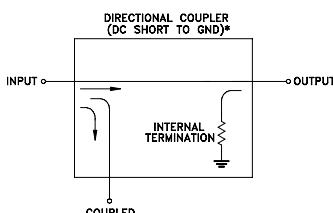


Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
3.00	2.06	2.03	.10	2.500	1.525	.125
76.20	52.32	51.56	2.54	63.50	38.74	3.18

H	J	K	L	M	N	wt
.50	.50	.50	2.00	1.00	2.00	grams
12.70	12.70	12.70	50.80	25.40	50.80	230

Electrical Schematic



* ELECTRICAL SCHEMATIC IS FOR DIRECTIONAL COUPLER (DC SHORT TO GND)*

Features

- excellent mainline loss, 0.25 dB typ.
- good VSWR, 1.15 typ.

Applications

- cellular
- PCS
- ISM



CASE STYLE: AW1564

Connectors	Model
SMA	ZARC-25-252-S+

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

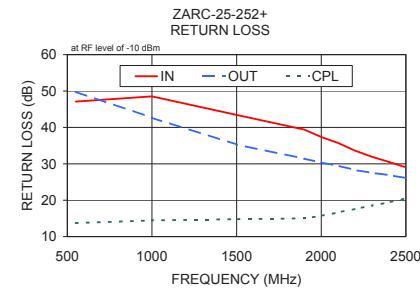
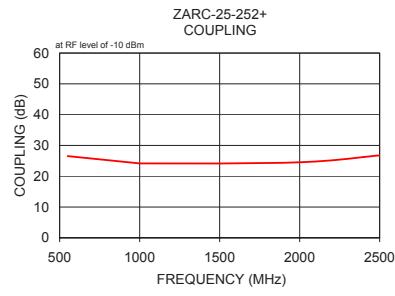
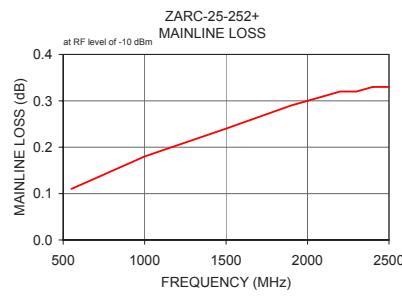
Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range		550		2500	MHz
Mainline Loss (above theoretical 0.014 dB)	550 900 2200 2500	— — — —	0.11 0.15 0.30 0.30	0.25 0.30 0.45 0.50	dB
Coupling* (IN-CPL)	550 - 2500 550 900 2200 2500	25.0 25.8 23.5 23.7 25.0	25.0 26.5 24.3 25.0 26.5	27.3 25.1 26.3 28.0	dB
Coupling Flatness(±)	550 - 900 900 - 2200 2200 - 2500	— — —	1.1 0.4 0.7	1.6 1.0 1.2	dB
Return Loss (Input)	550 900 2200 2500	24 22 18 18	30 27 25 24	—	dB
Return Loss (Output)	550 900 2200 2500	24 22 18 18	30 27 23 22	—	dB
Return Loss (Coupling)	550 900 2200 2500	12 11 15 16	14 13 18 23	—	dB
Input Power	550 - 1500 1500-2500	— —	— —	100 80	W

* Coupling can be used for forward direction only.

Typical Performance Data

Frequency (MHz)	Mainline Loss (dB)	Coupling (dB)	Directivity (dB)	Return Loss (dB)	
	In-Out			In	Out
550.00	0.11	26.54	14.85	47.09	49.80
1000.00	0.18	24.16	10.22	48.53	42.65
1500.00	0.24	24.13	7.13	43.44	35.29
1900.00	0.29	24.37	5.10	39.39	31.40
2000.00	0.30	24.54	4.57	37.37	30.35
2100.00	0.31	24.79	4.01	35.72	29.46
2200.00	0.32	25.16	3.43	33.62	28.29
2300.00	0.32	25.65	2.81	31.93	27.53
2400.00	0.33	26.23	2.19	30.52	26.90
2500.00	0.33	26.79	1.63	29.04	26.09



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